



Product Brochure

Airmux-5000 PtMP

Ride the Airmux-5000 PtMP Wireless Highway

Airmux-5000 is a Point-to-Multipoint (PtMP) solution with a unique air interface that ensures robust performance in harsh spectrum conditions.

This cost-effective solution delivers up to 250 Mbps and is greatly suitable for last mile enterprise and residential connectivity in rural and low-density areas when budget is limited.



Your Network's Edge®

Airmux-5000 Highlights

- OFDM, MIMO 2x2 / Diversity enables real nLOS deployment
- Multi-Band Capabilities - All in a Single Unit
- Fixed and Nomadic capabilities
- Full Span of Asymmetric Traffic
- Coexists with RADWIN's PtP and PtMP solutions



Airmux-5000 Base Stations

- Up to 250 Mbps per base station sector
- Guaranteed SLA/Best-Effort
- Long range – 40 Km / 25 miles
- Low and constant latency
- IP67 certified

Airmux-5000 Subscriber Units

- High-capacity SUs – up to 250 Mbps
- Pay-as-you-grow capacity
- Various antenna configurations
- Small form factor for low visual impact
- Innovative operational simplicity

Airmux-5000 Applications

CARRIERS & ISPs

Airmux-5000 PtMP is an excellent revenue generator for carriers and ISPs that are looking to deploy last mile enterprise connectivity and deliver high-capacity broadband access to end users.

Carriers can leverage Airmux-5000 PtMP capabilities and nLOS outstanding performance to backhaul wireless and landline access systems such as Wi-Fi hot spots.



GOVERNMENT & ENTERPRISE NETWORKS

Airmux-5000 PtMP offers exclusive wireless broadband infrastructure for government and enterprise networks to dramatically reduce their total cost of ownership when implementing the following applications:

- Connectivity of high resolution video surveillance
- Wide range inter-office connectivity
- Mission critical broadband applications



Airmux-5000 Base Stations

Airmux-5000 Base Station is a high capacity OFDM / MIMO 2x2 outdoor Base Station unit that can cover a single sector in MIMO mode, using dual polarized antenna, or dual sectors when working with two single-polarized antennas. It enables TDD synchronization of all collocated sectors within a site and between base stations located in different sites. This synchronization prevents mutual interference between closely situated radio units and saves tower space and spectrum.

Airmux-5000 Base Stations portfolio supports fixed and nomadic applications, providing varying levels of capacity: 50, 100 and 250 Mbps.

Two versions of RADWIN 5000 Base Stations are available:

- Airmux-5000 BS-AIR (5.X GHz) supporting Best effort service
- Airmux-5000 BS-PRO (5.x GHz /3.x GHz) also enables to offer SLA for bandwidth-demanding applications based on Committed Information Rate (CIR)



Airmux-5000 Subscriber Units

Airmux-5000 powerful Subscriber Units (SUs) deliver fiber-like connectivity with high Packet-Per-Second (PPS) processing power to maintain highest capacity even in small packet applications.

Designed for low visual impact, RADWIN's ruggedized SUs assure long lasting operation even in the harshest conditions. Innovative operational simplicity concepts and cutting-edge technology streamline operations and maintenance procedures.

High-capacity subscriber units (4.9 - 5.9 GHz)

- Pay-as-you-grow 25 up to 250 Mbps
- Multiple antenna configurations
- High durability – IP 66/IP67 enclosure
- Compatible with all RADWIN base stations
- Available Models:
 - Airmux-5000 SU-AIR: Designed for residential subscribers
 - Airmux-5000 SU-PRO: Offers SLA for enterprise and bandwidth-demanding applications, based on CIR



SU Embedded (16dBi)



SU Integrated (22dBi)

High-capacity subscriber units (3.3 - 3.8 GHz / 3.65 GHz)

- Pay-as-you-grow 25 up to 100 Mbps
- Available as connectorized unit or with integrated antenna
- High durability – IP 67 enclosure
- Available Models:
 - HSU-R: Designed for residential subscribers
 - HSU: Offers SLA for enterprise and bandwidth-demanding applications, based on CIR



Product specifications (See individual Product Data Sheets for detailed spec.)

Maximum Net Aggregate Capacity		
	Base station	High-Capacity Subscriber Units
4.9 - 5.9 GHz	250 Mbps	SU AIR – Up 100 Mbps, SU PRO – Up to 250 Mbps
3.3 - 3.8 GHz, 3.65 GHz		10, 25, 50 Mbps, upgradable to 100 Mbps
Antenna Configurations		
4.9 - 5.9 GHz	11dBi, 13dBi, Connectorized	16dBi, 22dBi, Connectorized
3.3 - 3.8 GHz, 3.65 GHz	Connectorized	13dBi, 20dBi, Connectorized
Radio		
Number of SUs / HBS	Up to 32 SUs simultaneously	
Range	Up to 40 km / 25 miles	
Frequency Bands	Multiband radio supporting 4.9 - 5.9 GHz or 3.3-3.8 / 3.65 GHz /2.3-2.5 GHz	
Channel Bandwidth	5.x GHz – Configurable: 10, 20, 40 MHz, 3.x GHz: 5, 7, 10, 14, 20, 40 MHz	
Radio Access scheme	OFDM, Auto MIMO 2x2 or Diversity per SU	
Adaptive Modulation & Coding	BPSK/QPSK/QAM16/QAM64	
SLA management	CIR, MIR, Best-Effort	
End to End Latency	Typical: 3.5msec	
Duplex Technology	TDD, Configurable Uplink / Downlink ratio	
Max Tx Power	HBS: 25dBm @ 5.x GHz, 25dBm@ 3.x GHz (in all modulation schemes) HSU: 25dBm, SU (embedded) 24dBm, SU (integrated) 26dBm	
DFS (FCC & ETSI)	Supported	
Spectrum Viewer	Supported at HBS & SU/ HSU	
TDD Synchronization	Inter & Intra site synchronization, using GSU	
Encryption	AES 128	
Interfaces		
Ethernet Interface	HBS: Single port for Data & management, 10/100/1000BaseT, SU: 10/100/1000BaseT	
Networking		
Sub convergence layer	Layer 2	
QoS	Packet classification to 4 queues according to 802.1p and Diffserv, Strict Priority, TTL	
VLAN	802.1Q, QinQ, 4094 VLANs	
Management		
Management Application	HBS: Airmux Manager & Web based management, SU: Smartphone App.	
Protocol	SNMPv1, SNMPv3, Telnet, HTTP, IPv4 & IPv6, RADIUS for AAA Server	
NMS Application	RADview or integration with 3rd party NMS system via standard MIBs	
Power		
Power Feeding	Provided over PoE interface	
Power Consumption	HBS < 25W, SU (embedded) & HSU < 12W, SU (integrated) < 9W	
Environmental		
Operating Temperatures	-35°C to 60°C / -31°F to 140°F	
Humidity	100% condensing HBS, HSU & SU (Integrated): IP67 SU (embedded): IP66	
Radio Regulations	FCC, IC, ETSI, WPC, MII	



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Contact us at market@rad.com to learn more or visit www.rad.com

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